

SEP 13 2007

Application No. 10/772,771
After Final Office Action of July 13, 2007

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims

1 (Currently amended). A sheet feeding apparatus comprising:

- a sheet container for containing a plurality of stacked sheets;
- an elevation/lowering driving unit for elevating and lowering the sheet container;
- a sheet conveying unit for sequentially taking out the sheets from an uppermost layer put in contact with the sheet conveying unit by elevating the sheet container by the elevation/lowering driving unit and conveying the sheets to a predetermined conveyance path;
- a regulating unit provided so as to be slidable on the sheet container for regulating a set position of a sheet;
- a position detector for detecting a position of the regulating unit; and
- a contact detector for detecting a contact state between the uppermost layer of the sheets contained in the sheet container and the sheet conveying unit,

wherein the elevation/lowering driving unit lowers the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit;

and further comprising:

- a receiving unit for receiving information input externally for setting according to a lowered amount of the sheet container; and
- a storage for storing the received information,

wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit.

2 (Original). The sheet feeding apparatus according to Claim 1, wherein the elevation/lowering driving unit lowers the sheet container until the uppermost layer of

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the sheets and the sheet conveying unit are separated when the position detector detects a change in the position of the regulating unit.

3. Cancelled.

4 (Original). The sheet feeding apparatus according to Claim 1, further comprising a measuring unit for measuring a dimension of a sheet contained in the sheet container based on a detection result of the position detector.

5 (Original). The sheet feeding apparatus according to Claim 1, further comprising a clocking unit, wherein the elevation/lowering driving unit elevates the sheet container when a change in the position of the regulating unit is not detected for a predetermined time.

6 (Currently amended). A sheet feeding apparatus comprising:
sheet containing means for containing a plurality of stacked sheets;
elevation/lowering driving means for elevating and lowering the sheet containing means;
sheet conveying means for sequentially taking out the sheets from an uppermost layer put in contact with the sheet conveying means by elevating the sheet containing means by the elevation/lowering driving means and conveying the sheets to a predetermined conveyance path;
regulating means provided so as to be slideable on the sheet containing means for regulating a set position of a sheet;
position detecting means for detecting a position of the regulating means; and
contact detecting means for detecting a contact state between the uppermost layer of the sheets contained in the sheet containing means and the sheet conveying means,
wherein the elevation/lowering driving means lowers the sheet containing means when a change in the position of the regulating means is detected by the position detecting means in a state in which the uppermost layer of the sheets contacts the sheet conveying means;

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and further comprising:

a receiving unit for receiving information input externally for setting according to
a lowered amount of the sheet container; and

a storage for storing the received information,

wherein the elevation/lowering driving unit lowers the sheet container by the
lowered amount stored in the storage when the position detector detects a change in
the position of the regulating unit.

7 (Original). The sheet feeding apparatus according to Claim 6, wherein the
elevation/lowering driving means lowers the sheet containing means until the
uppermost layer of the sheets and the sheet conveying means are separated when the
position detecting means detects a change in the position of the regulating means.

8. Cancelled.

9 (Original). The sheet feeding apparatus according to Claim 6, further comprising
measuring means for measuring a dimension of a sheet contained in the sheet
containing means based on a detection result of the position detecting means.

10 (Original). The sheet feeding apparatus according to Claim 6, further comprising
clocking means, wherein the elevation/lowering driving means elevates the sheet
containing means when a change in the position of the regulating means is not detected
for a predetermined time.

11 (Currently amended). An image reading apparatus comprising:
a sheet container for containing a plurality of stacked sheets;
an elevation/lowering driving unit for elevating and lowering the sheet container;
a sheet conveying unit for sequentially taking out the sheets from an uppermost
layer put in contact with the sheet conveying unit by elevating the sheet container by
the elevation/lowering driving unit and conveying the sheets to a predetermined
conveyance path;

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an image reading unit for reading an image on a sheet conveyed by the sheet conveying unit;

a regulating unit provided so as to be slidable on the sheet container for regulating a set position of a sheet;

a position detector for detecting a position of the regulating unit; and

a contact detector for detecting a contact state between the uppermost layer of the sheets contained in the sheet container and the sheet conveying unit,

wherein the elevation/lowering driving unit lowers the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit;

and further comprising:

a receiving unit for receiving information input externally for setting according to a lowered amount of the sheet container; and

a storage for storing the received information,

wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit.

12 (Original). The image reading apparatus according to Claim 11, wherein the elevation/lowering driving unit lowers the sheet container until the uppermost layer of the sheets and the sheet conveying unit are separated when the position detector detects a change in the position of the regulating unit.

13. Cancelled.

14 (Original). The image reading apparatus according to Claim 11, further comprising a measuring unit for measuring a dimension of a sheet contained in the sheet container based on a detection result of the position detector.

15 (Original). The image reading apparatus according to Claim 11, further comprising a clocking unit, wherein the elevation/lowering driving unit elevates the sheet container

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when a change in the position of the regulating unit is not detected for a predetermined time.

16 (Currently amended). An image forming apparatus comprising:

- a sheet container for containing a plurality of stacked sheets;
- an elevation/lowering driving unit for elevating and lowering the sheet container;
- a sheet conveying unit for sequentially taking out the sheets from an uppermost layer put in contact with the sheet conveying unit by elevating the sheet container by the elevation/lowering driving unit and conveying the sheets to a predetermined conveyance path;

- an image forming unit for forming an image on a sheet conveyed by the sheet conveying unit;

- a regulating unit provided so as to be slidable on the sheet container for regulating a set position of a sheet;

- a position detector for detecting a position of the regulating unit; and

- a contact detector for detecting a contact state between the uppermost layer of the sheets contained in the sheet container and the sheet conveying unit,

- wherein the elevation/lowering driving unit lowers the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit;

- and further comprising:

- a receiving unit for receiving information input externally for setting according to a lowered amount of the sheet container; and

- a storage for storing the received information,

- wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit.

17 (Original). The image forming apparatus according to Claim 16, wherein the elevation/lowering driving unit lowers the sheet container until the uppermost layer of the sheets and the sheet conveying unit are separated when the position detector detects a change in the position of the regulating unit.

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18. Cancelled

19 (Original). The image forming apparatus according to Claim 16, further comprising a measuring unit for measuring a dimension of a sheet contained in the sheet container based on a detection result of the position detector.

20 (Original). The image forming apparatus according to Claim 16, further comprising a clocking unit, wherein the elevation/lowering driving unit elevates the sheet container when a change in the position of the regulating unit is not detected for a predetermined time.